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REMEDIATION SUMMARY AND SITE CLOSURE PROPOSAL

**Legacy Reserves, L.P.
JM Denton Tank Battery
Lea County, New Mexico
UNIT K (NE/SW), Section 11, Township 15 South, Range 37 East
Latitude 33° 01.827' North, Longitude 103° 10.241' West
NMOCD # 1RP-2275**

Prepared For:

Legacy Reserves, L.P.
P.O. Box 10848
Midland, Texas 79702

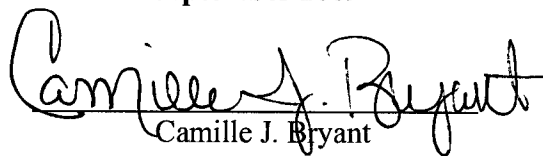
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OCT 13 2009

HOBBSOCD

Prepared By:
Basin Environmental Consulting, LLC

September 2009


Camille J. Bryant

Project Manager

Approved by
Geoffrey Leaking
Environmental Engineer
NMOCD-Holler
10/13/09

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1.0 INTRODUCTION

Basin Environmental Consulting, LLC (Basin), on behalf of Legacy Reserves, L.P. (Legacy), has prepared this Remediation Summary and Site Closure Proposal for the release site known as JM Denton Tank Battery. The site is located in Unit Letter K (NE ¼ SW ¼), Section 11, Township 15 South, Range 37 East, in Lea County, New Mexico. The property is owned by Mr. Darr Angell. The release site is located inside an active tank battery containing numerous tanks, vessels, pipelines and electrical conduit. The site latitude is 33° 01.827' North, and the longitude is 103° 10.241' West. The Site Location and Site Map are provided as Figure 1 and Figure 2, respectively. The Release Notification and Corrective Action (NMOCD Form C-141) indicated approximately 1,750 barrels of produced water was released from a 1,000 barrel tank and 1,500 barrels were recovered during the initial response activities, resulting in a net loss of 250 barrels of produced water. The Release Notification and Corrective Action is provided as Appendix C.

On August 10, 2009, the transfer pump on the 1,000 barrel water tank malfunctioned releasing approximately 1,750 barrels of produced water inside the JM Denton Tank Battery facility. Legacy personnel recovered approximately 1,500 barrels of produced water from inside the secondary containment of the facility. The initial visually stained area covered an area measuring approximately 30,000 square feet.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Office of the State Engineer (NMOSE) database indicates average depth to groundwater is approximately 42 feet below ground surface (bgs) in the section. The depth to groundwater at the JM Denton Tank Battery release site results in a score of twenty (20) points being assigned to the site, based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells located less than 1,000 feet from the release site, resulting in zero (0) points being assigned to this site as a result of this criteria.

There are no surface water bodies located within 1,000 feet of the site. Based on the NMOCD ranking system zero (0) points will be assigned to the site as a result of the criteria.

The NMOCD guidelines indicate the JM Denton Tank Battery release site has a ranking score of twenty (20). Based on this score, the soil remediation levels for a site with a ranking score of twenty (20) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 100 mg/Kg (ppm)

3.0 SUMMARY OF FIELD ACTIVITIES

On August 19, 2009, Basin excavated two (2) trenches (Trench #1 and Trench #2) inside the secondary containment walls of the tank battery to investigate the vertical extent of the impacted soil. The trenches were excavated, soil samples were collected and the trenches were backfilled. The selected soil samples were submitted to the laboratory for determination of concentrations of benzene, toluene, ethyl-benzene and xylene (BTEX), total petroleum hydrocarbon (TPH) and chlorides using EPA SW-846 8021b, SW-846 8015M, 300.1 respectively. Table 1 summarizes the concentrations of BTEX, TPH and Chlorides in Soil. The analytical reports are provided as Appendix A.

Trench #1 was excavated in the southwest corner of the tank battery to a total depth of approximately thirteen (13) feet bgs. Three (3) soil samples (Trench #1 @ 2', Trench #1 @ 7' and Trench #1 @ 13') were collected and submitted to the laboratory. The laboratory analytical results indicated benzene concentrations ranged from less than the appropriate laboratory detection limit (MDL) for soil samples Trench #1 @ 7' and Trench #1 @ 13' to 0.0026 mg/Kg for soil sample Trench #1 @ 2'. The laboratory analytical results indicated BTEX concentrations ranged from less than the laboratory MDL for soil sample Trench #1 @ 13' to 0.8714 mg/Kg for soil sample Trench #1 @ 2'. The laboratory analytical results indicated TPH concentrations ranged from 29.9 mg/Kg for soil sample Trench #1 @ 13' to 645.9 mg/Kg for soil sample Trench #1 @ 2'. The laboratory analytical results indicated chloride concentrations ranged from 471 mg/Kg for the soil sample Trench #1 @ 13' to 2,140 mg/Kg for soil sample Trench #1 @ 2'.

Trench #2 was excavated in the northeast corner of the tank battery to a total depth of approximately nine (9) feet bgs. Three (3) soil samples (Trench #2 @ 2', Trench #2 @ 7' and Trench #2 @ 9') were collected and submitted to the laboratory. The laboratory analytical results indicated benzene concentrations ranged from less than the appropriate laboratory MDL for soil samples Trench #2 @ 7' and Trench #2 @ 9' to 0.0012 mg/Kg for soil sample Trench #2 @ 2'. The laboratory analytical results indicated BTEX concentrations ranged from 0.1048 mg/Kg for soil sample Trench #2 @ 2' to 0.8806 mg/Kg for soil sample Trench #2 @ 7'. The laboratory analytical results indicated TPH concentrations ranged from 822.3 mg/Kg for soil sample Trench #2 @ 9' to 3,223 mg/Kg for soil sample Trench #2 @ 7'. The laboratory analytical results indicated chloride concentrations ranged from 880 mg/Kg for the soil sample Trench #2 @ 9' to 2,370 mg/Kg for soil sample Trench #2 @ 2'.

On September 2, 2009, during a meeting with NMOCD, Legacy and Basin representatives, the NMOCD Hobbs District Office granted verbal approval to conduct risk-based closure activities at the JM Denton Tank Battery release site.

4.0 PROPOSED ACTIONS

The release site is located inside an active tank battery with numerous tanks, vessels, pipelines and electrical conduit. Due to the extreme health, safety and environmental hazards associated

with excavating the impacted soil at the release, Legacy proposes a limited risk-based closure strategy to progress the site toward an NMOCD approved closure:

- Limited manual excavation activities will be conducted inside the tank battery. The excavated soil will be stockpiled on 6 mil plastic pending transportation to an NMOCD permitted disposal facility.
- On completion of the excavation activities a six (6) inch clay cap will be placed inside the tank battery. Following the installation of the clay cap, the area will be covered with caliche.

5.0 REPORTING

Upon review and approval of this proposal by the NMOCD, Legacy is prepared to begin field activities and perform the corrective actions summarized in this Remediation Summary and Site Closure Proposal. On completion of the field activities summarized in this proposal, Legacy will submit a Site Closure Request to the NMOCD, documenting remediation activities.

6.0 QA/QC PROCEDURES

6.1 Soil Sampling

Soil Samples were delivered to Xenco Laboratories in Odessa, Texas for BTEX, TPH and chloride analyses using the methods described below. Soil samples were analyzed for BTEX, TPH and chloride concentrations within fourteen (14) days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO
- Chloride concentrations in accordance with EPA Method 300.1

6.2 Decontamination of Equipment

Cleaning of the sampling equipment were the responsibility of the environmental technician. Prior to use and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

6.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody (COC) form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

7.0 LIMITATIONS

Basin Environmental Consulting, LLC has prepared this Remediation Summary and Site Closure Proposal to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Consulting, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Consulting, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Consulting, LLC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Consulting, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Legacy Reserves, L.P. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Consulting, LLC and/or Legacy Reserves, L.P.

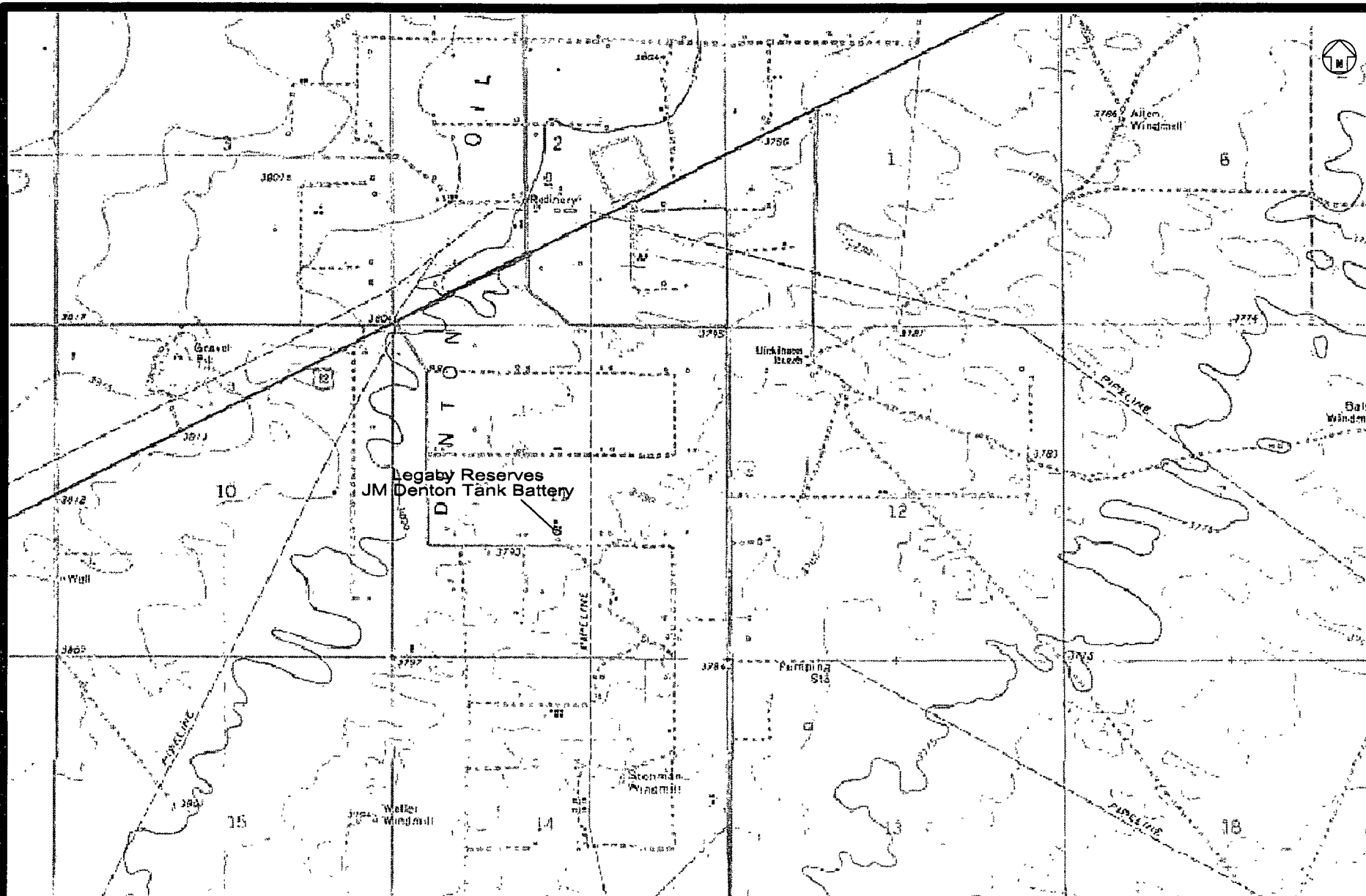
8.0 DISTRIBUTION:

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Oil Conservation Division (District 1)
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cjbryant@basin-consulting.com

Figures

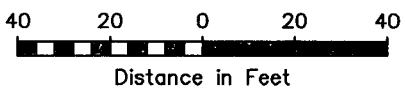
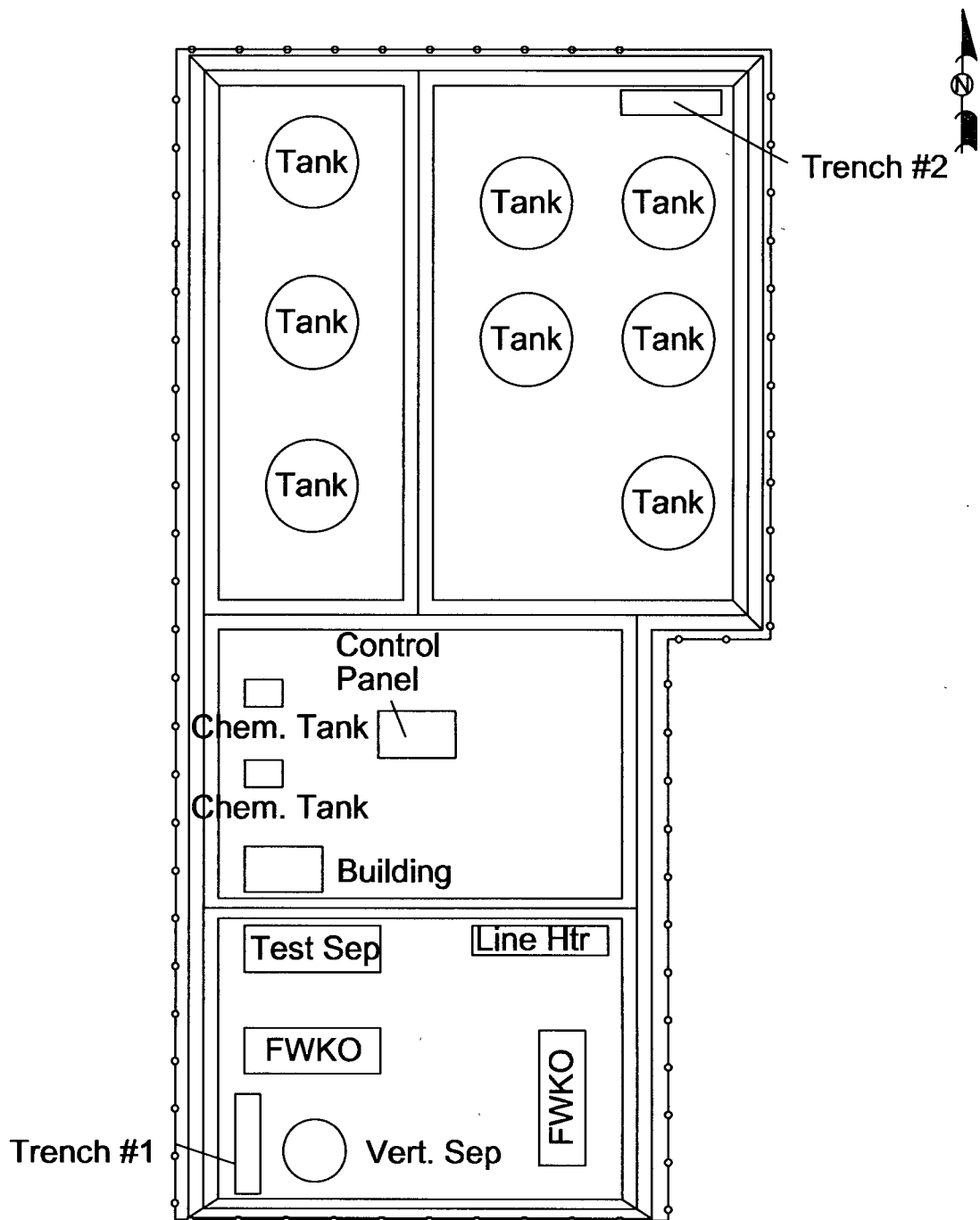


3000 1500 0 1500 3000
 Distance in Feet

Figure 1
 Site Location Map
 JM Denton Tank Battery
 Legacy Reserves, LP
 Lea County, New Mexico

Basin Environmental Consulting

Prep By: CDS	Checked By: CJB
September 11, 2009	Scale 1"=3000'



LEGEND:

Figure 2
Site and Sample
Location Map
Legacy Reserves LP
JM Denton Tank Battery

Lea County, NM
1RP - 2275

Basin Environmental Consulting

Scale: 1" = 40'	Drawn By: CDS	Prepared By: CDS
September 1, 2009		

Tables

TABLE 1

CONCENTRATIONS OF TPH, BTEX AND CHLORIDES IN SOIL

LEGACY RESERVES, LP
JM DENTON TANK BATTERY
LEA COUNTY, NEW MEXICO
NMOCD # 1RP-2275

SAMPLE LOCATION	SAMPLE DEPTH (Below Grade Surface)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030						SW 846-8015M				300.1
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M,P- XYLENE (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	
Trench #1 @ 2'	2 Feet	08/19/09	In-Situ	0.0026	0.199	0.1253	0.4614	0.0831	0.8714	152	461	32.9	645.9	2,140
Trench #1 @ 7'	7 Feet	08/19/09	In-Situ	<0.0011	<0.0022	0.0029	0.0101	0.0031	0.0161	17.7	128	<16.4	145.7	611
Trench #1 @ 13'	13 Feet	08/19/09	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.4	29.9	<17.4	29.9	471
Trench #2 @ 2'	2 Feet	08/19/09	In-Situ	0.0012	0.0041	0.0166	0.0532	0.0297	0.1048	98.7	1,320	154	1,573	2,370
Trench #2 @ 7'	7 Feet	08/19/09	In-Situ	<0.0021	0.0832	0.1110	0.5181	0.1683	0.8806	408	2,610	205	3,223	1,480
Trench #2 @ 9'	9 Feet	08/19/09	In-Situ	<0.0011	0.0171	0.0266	0.1254	0.0959	0.265	134	643	45.3	822.3	880

Appendices

Appendix A

Analytical Laboratory Reports

Analytical Report 341769

for

Basin Environmental Consulting, LLC

Project Manager: Camille Bryant

JM Denton Tank Battery

26-AUG-09



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),

South Carolina(96031001), Louisiana(04154), Georgia(917)



26-AUG-09

Project Manager: **Camille Bryant**
Basin Environmental Consulting, LLC
P.O. Box 381
Lovington, NM 88260

Reference: XENCO Report No: **341769**
JM Denton Tank Battery
Project Address: Lea County, NM

Camille Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 341769. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 341769 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 341769



Basin Environmental Consulting, LLC, Lovington, NM

JM Denton Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Trench # 1 @ 2'	S	Aug-19-09 08:15		341769-001
Trench # 1 @ 7'	S	Aug-19-09 08:58		341769-002
Trench # 1 @ 13'	S	Aug-19-09 09:50		341769-003
Trench # 2 @ 2'	S	Aug-19-09 10:30		341769-004
Trench # 2 @ 7'	S	Aug-19-09 11:09		341769-005
Trench # 2 @ 9'	S	Aug-19-09 11:30		341769-006



CASE NARRATIVE

Client Name: Basin Environmental Consulting, LLC

Project Name: JM Denton Tank Battery

Project ID:

Work Order Number: 341769

Report Date: 26-AUG-09

Date Received: 08/21/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-769444 Inorganic Anions by EPA 300

None

Batch: LBA-769451 Percent Moisture

None

Batch: LBA-769468 BTEX-MTBE EPA 8021B

SW8021BM

Batch 769468, 4-Bromofluorobenzene recovered below QC limits Data not confirmed by re-analysis. Samples affected are: 536026-1-BLK.

Batch: LBA-769617 BTEX-MTBE EPA 8021B

SW8021BM

Batch 769617, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 341769-004, -006.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 769617, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 341769-006, 341769-004.

4-Bromofluorobenzene recovered below QC limits Data not confirmed by re-analysis. Samples affected are: 536136-1-BLK.

4-Bromofluorobenzene recovered above QC limits Data not confirmed by re-analysis. Samples affected are: 536136-1-BKS, 536136-1-BSD, 341769-004 S, 341769-004 SD.

Batch: LBA-769861 TPH by SW8015 Mod

None



Certificate of Analysis Summary 341769

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: JM Denton Tank Battery



Project Id:

Contact: Camille Bryant

Project Location: Lea County, NM

Date Received in Lab: Fri Aug-21-09 08:13 am


Report Date: 26-AUG-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	341769-001	341769-002	341769-003	341769-004	341769-005	341769-006
	<i>Field Id:</i>	Trench # 1 @ 2'	Trench # 1 @ 7'	Trench # 1 @ 13'	Trench # 2 @ 2'	Trench # 2 @ 7'	Trench # 2 @ 9'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-19-09 08:15	Aug-19-09 08:58	Aug-19-09 09:50	Aug-19-09 10:30	Aug-19-09 11:09	Aug-19-09 11:30
Anions by EPA 300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Aug-21-09 19:44	Aug-21-09 19:44	Aug-21-09 19:44	Aug-21-09 19:44	Aug-21-09 19:44	Aug-21-09 19:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2140 31.0	611 11.0	471 11.6	2370 61.6	1480 27.6	880 21.3
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-21-09 15:00	Aug-21-09 15:00	Aug-21-09 15:00	Aug-24-09 14:30	Aug-21-09 15:00	Aug-24-09 14:30
	<i>Analyzed:</i>	Aug-22-09 05:10	Aug-22-09 05:28	Aug-22-09 05:47	Aug-24-09 17:10	Aug-22-09 06:42	Aug-24-09 17:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.0026 0.0012	ND 0.0011	ND 0.0012	0.0012 0.0012	ND 0.0221	ND 0.0011
Toluene		0.1990 0.0025	ND 0.0022	ND 0.0023	0.0041 0.0024	0.0832 0.0441	0.0171 0.0021
Ethylbenzene		0.1253 0.0012	0.0029 0.0011	ND 0.0012	0.0166 0.0012	0.1110 0.0221	0.0266 0.0011
m,p-Xylenes		0.4614 0.0025	0.0101 0.0022	ND 0.0023	0.0532 0.0024	0.5181 0.0441	0.1254 0.0021
o-Xylene		0.0831 0.0012	0.0031 0.0011	ND 0.0012	0.0297 0.0012	0.1683 0.0221	0.0959 0.0011
Total Xylenes		0.5445 0.0012	0.0132 0.0011	ND 0.0012	0.0829 0.0012	0.6864 0.0221	0.2213 0.0011
Total BTEX		0.8714 0.0012	0.0161 0.0011	ND 0.0012	0.1048 0.0012	0.8806 0.0221	0.2650 0.0011
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Aug-24-09 09:50	Aug-24-09 09:50	Aug-24-09 09:50	Aug-24-09 09:50	Aug-24-09 09:50	Aug-24-09 09:50
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		19.44 1.00	9.05 1.00	13.76 1.00	18.88 1.00	9.51 1.00	6.30 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Aug-25-09 16:14	Aug-25-09 16:14	Aug-25-09 16:14	Aug-25-09 16:14	Aug-25-09 16:14	Aug-25-09 16:14
	<i>Analyzed:</i>	Aug-25-09 20:29	Aug-25-09 20:54	Aug-25-09 21:18	Aug-25-09 21:43	Aug-25-09 22:07	Aug-25-09 22:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		152 18.6	17.7 16.4	ND 17.4	98.7 92.5	408 82.5	134 16.0
C12-C28 Diesel Range Hydrocarbons		461 18.6	128 16.4	29.9 17.4	1320 92.5	2610 82.5	643 16.0
C28-C35 Oil Range Hydrocarbons		32.9 18.6	ND 16.4	ND 17.4	154 92.5	205 82.5	45.3 16.0
Total TPH		646 18.6	146 16.4	29.9 17.4	1573 92.5	3223 82.5	822 16.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II
Odessa Laboratory Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: JM Denton Tank Battery

Work Orders : 341769,

Project ID:

Lab Batch #: 769468

Sample: 536026-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/22/09 00:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

Lab Batch #: 769468

Sample: 536026-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/22/09 00:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0310	0.0300	103	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 769468

Sample: 536026-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/22/09 01:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0144	0.0300	48	80-120	*

Lab Batch #: 769468

Sample: 341769-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/22/09 05:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0207	0.0300	69	80-120	*
4-Bromofluorobenzene	0.2306	0.0300	769	80-120	*

Lab Batch #: 769468

Sample: 341769-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/22/09 05:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0454	0.0300	151	80-120	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: JM Denton Tank Battery

Work Orders : 341769,

Project ID:

Lab Batch #: 769468

Sample: 341769-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/22/09 05:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 769468

Sample: 341769-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/22/09 06:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0464	0.0300	155	80-120	*

Lab Batch #: 769468

Sample: 341867-004 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/22/09 09:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0370	0.0300	123	80-120	*

Lab Batch #: 769468

Sample: 341867-004 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/22/09 10:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0353	0.0300	118	80-120	

Lab Batch #: 769617

Sample: 536136-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/24/09 15:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0369	0.0300	123	80-120	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: JM Denton Tank Battery

Work Orders : 341769,

Project ID:

Lab Batch #: 769617

Sample: 536136-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/24/09 16:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0370	0.0300	123	80-120	*

Lab Batch #: 769617

Sample: 536136-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/24/09 16:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0204	0.0300	68	80-120	*

Lab Batch #: 769617

Sample: 341769-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/24/09 17:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0230	0.0300	77	80-120	**
4-Bromofluorobenzene	0.1195	0.0300	398	80-120	**

Lab Batch #: 769617

Sample: 341769-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/24/09 17:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	**
4-Bromofluorobenzene	0.1635	0.0300	545	80-120	**

Lab Batch #: 769617

Sample: 341769-004 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/24/09 19:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0604	0.0300	201	80-120	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: JM Denton Tank Battery

Work Orders : 341769,

Project ID:

Lab Batch #: 769617

Sample: 341769-004 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/24/09 19:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0640	0.0300	213	80-120	*

Lab Batch #: 769861

Sample: 536258-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/25/09 17:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	91.5	100	92	70-135	
o-Terphenyl	36.4	50.0	73	70-135	

Lab Batch #: 769861

Sample: 536258-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/25/09 18:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	93.5	100	94	70-135	
o-Terphenyl	37.2	50.0	74	70-135	

Lab Batch #: 769861

Sample: 536258-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/25/09 18:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	78.9	99.9	79	70-135	
o-Terphenyl	40.1	50.0	80	70-135	

Lab Batch #: 769861

Sample: 341769-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/25/09 20:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	80.5	99.9	81	70-135	
o-Terphenyl	39.0	50.0	78	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: JM Denton Tank Battery

Work Orders : 341769,

Project ID:

Lab Batch #: 769861

Sample: 341769-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/25/09 20:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.0	99.7	80	70-135	
o-Terphenyl	40.2	49.9	81	70-135	

Lab Batch #: 769861

Sample: 341769-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/25/09 21:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.2	99.9	80	70-135	
o-Terphenyl	40.3	50.0	81	70-135	

Lab Batch #: 769861

Sample: 341769-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/25/09 21:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.7	100	77	70-135	
o-Terphenyl	38.7	50.0	77	70-135	

Lab Batch #: 769861

Sample: 341769-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/25/09 22:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.3	99.5	82	70-135	
o-Terphenyl	39.2	49.8	79	70-135	

Lab Batch #: 769861

Sample: 341769-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/25/09 22:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.3	100	81	70-135	
o-Terphenyl	40.3	50.0	81	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: JM Denton Tank Battery

Work Orders : 341769,

Project ID:

Lab Batch #: 769861

Sample: 341767-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/26/09 03:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	105	99.9	105	70-135	
o-Terphenyl	41.5	50.0	83	70-135	

Lab Batch #: 769861

Sample: 341767-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/26/09 03:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	97.2	100	97	70-135	
o-Terphenyl	37.9	50.0	76	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Blank Spike Recovery



Project Name: JM Denton Tank Battery

Work Order #: 341769

Project ID:

Lab Batch #: 769444

Sample: 769444-1-BKS

Matrix: Solid

Date Analyzed: 08/21/2009

Date Prepared: 08/21/2009

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.64	96	80-120	

Blank Spike Recovery [D] = $100 * [C] / [B]$

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



BS / BSD Recoveries



Project Name: JM Denton Tank Battery

Work Order #: 341769

Analyst: ASA

Date Prepared: 08/21/2009

Project ID:

Date Analyzed: 08/22/2009

Lab Batch ID: 769468

Sample: 536026-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	ND	0.1000	0.1058	106	0.1	0.1045	105	1	70-130	35	
Toluene	ND	0.1000	0.1040	104	0.1	0.1021	102	2	70-130	35	
Ethylbenzene	ND	0.1000	0.1135	114	0.1	0.1113	111	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.2306	115	0.2	0.2272	114	1	70-135	35	
o-Xylene	ND	0.1000	0.1093	109	0.1	0.1083	108	1	71-133	35	

Analyst: ASA

Date Prepared: 08/24/2009

Date Analyzed: 08/24/2009

Lab Batch ID: 769617

Sample: 536136-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	ND	0.1000	0.0919	92	0.1	0.0899	90	2	70-130	35	
Toluene	ND	0.1000	0.0893	89	0.1	0.0875	88	2	70-130	35	
Ethylbenzene	ND	0.1000	0.1003	100	0.1	0.0992	99	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.2084	104	0.2	0.2050	103	2	70-135	35	
o-Xylene	ND	0.1000	0.0976	98	0.1	0.0970	97	1	71-133	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: JM Denton Tank Battery

Work Order #: 341769

Analyst: BHW

Date Prepared: 08/25/2009

Project ID:

Date Analyzed: 08/25/2009

Lab Batch ID: 769861

Sample: 536258-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	857	86	1000	874	87	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	1000	100	1000	1020	102	2	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: JM Denton Tank Battery

Work Order #: 341769

Lab Batch #: 769444

Date Analyzed: 08/21/2009

Date Prepared: 08/21/2009

Project ID:

Analyst: LATCOR

QC- Sample ID: 341769-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	2140	621	2720	93	80-120	

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$

Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: JM Denton Tank Battery

Work Order #: 341769

Project ID:

Lab Batch ID: 769468

QC- Sample ID: 341867-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 08/22/2009

Date Prepared: 08/21/2009

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1028	0.0843	82	0.1028	0.0848	82	1	70-130	35	
Toluene	0.0026	0.1028	0.0810	76	0.1028	0.0811	76	0	70-130	35	
Ethylbenzene	ND	0.1028	0.0817	79	0.1028	0.0816	79	0	71-129	35	
m,p-Xylenes	ND	0.2056	0.1672	81	0.2056	0.1654	80	1	70-135	35	
o-Xylene	ND	0.1028	0.0775	75	0.1028	0.0777	76	0	71-133	35	

Lab Batch ID: 769617

QC- Sample ID: 341769-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 08/24/2009

Date Prepared: 08/24/2009

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.0012	0.1230	0.0740	59	0.1233	0.0775	62	5	70-130	35	X
Toluene	0.0041	0.1230	0.0618	47	0.1233	0.0644	49	4	70-130	35	X
Ethylbenzene	0.0166	0.1230	0.0595	35	0.1233	0.0600	35	1	71-129	35	X
m,p-Xylenes	0.0532	0.2461	0.1134	24	0.2465	0.1170	26	3	70-135	35	X
o-Xylene	0.0297	0.1230	0.0487	15	0.1233	0.0515	18	6	71-133	35	X

Matrix Spike Percent Recovery $[D] = 100 * (C - A) / B$
Relative Percent Difference $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not
ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries



Project Name: JM Denton Tank Battery

Work Order # : 341769

Project ID:

Lab Batch ID: 769861

QC- Sample ID: 341767-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 08/26/2009

Date Prepared: 08/25/2009

Analyst: BHW

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1100	1140	104	1100	1050	95	8	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1100	1290	117	1100	1240	113	4	70-135	35	

Matrix Spike Percent Recovery $[D] = 100 * (C - A) / B$
Relative Percent Difference $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not
ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: JM Denton Tank Battery

Work Order #: 341769

Lab Batch #: 769444

Date Analyzed: 08/21/2009

Date Prepared: 08/21/2009

Project ID:

Analyst: LATCOR

QC- Sample ID: 341769-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	2140	2040	5	20	

Lab Batch #: 769451

Date Analyzed: 08/24/2009

Date Prepared: 08/24/2009

Analyst: BEV

QC- Sample ID: 341769-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	19.4	18.7	4	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client Basin Environments
Date/ Time 08-21-09 0813
Lab ID # 341769
Initials JMF

Sample Receipt Checklist

	Yes	No	Client Initials
#1 Temperature of container/ cooler?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#2 Shipping container in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#3 Custody Seals intact on shipping container/ cooler?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Not Present</u>
#4 Custody Seals intact on sample bottles/ container? <u>(none)</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Not Present</u>
#5 Chain of Custody present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#6 Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#7 Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#8 Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID written on Cont./ Lid
#9 Container label(s) legible and intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not Applicable
#10 Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#11 Containers supplied by ELOT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#12 Samples in proper container/ bottle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Below
#13 Samples properly preserved?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Below
#14 Sample bottles intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#15 Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#16 Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
#17 Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Below
#18 All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Below
#19 Subcontract of sample(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Not Applicable</u>
#20 VOC samples have zero headspace?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Not Applicable</u>

Variance Documentation

Contact: _____ Contacted by _____ Date/ Time: _____

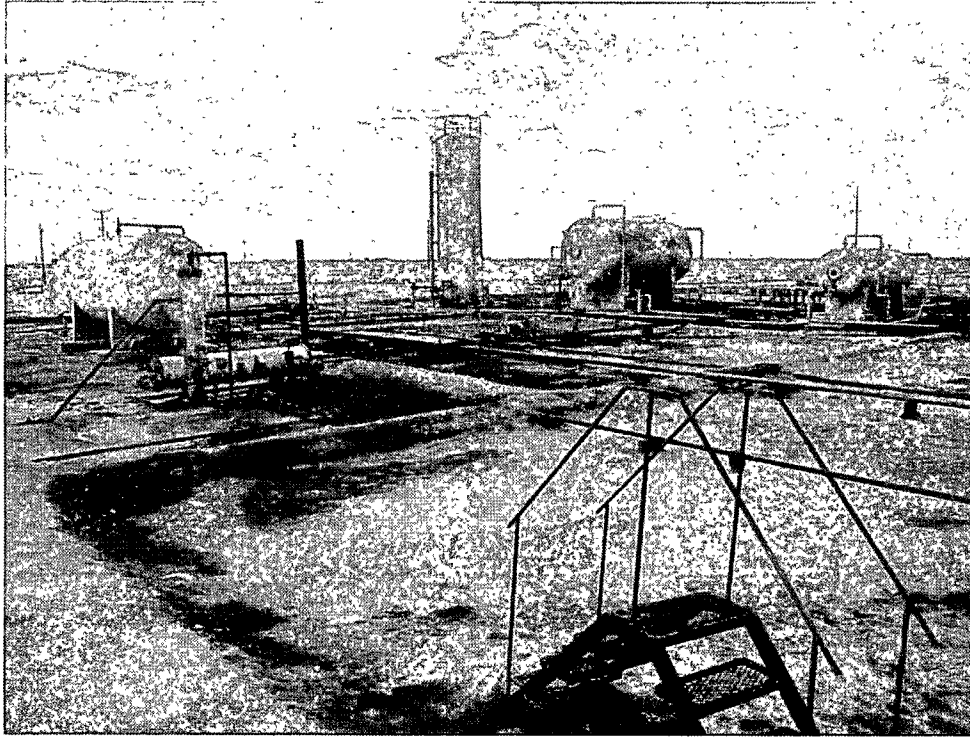
Regarding: _____

Corrective Action Taken: _____

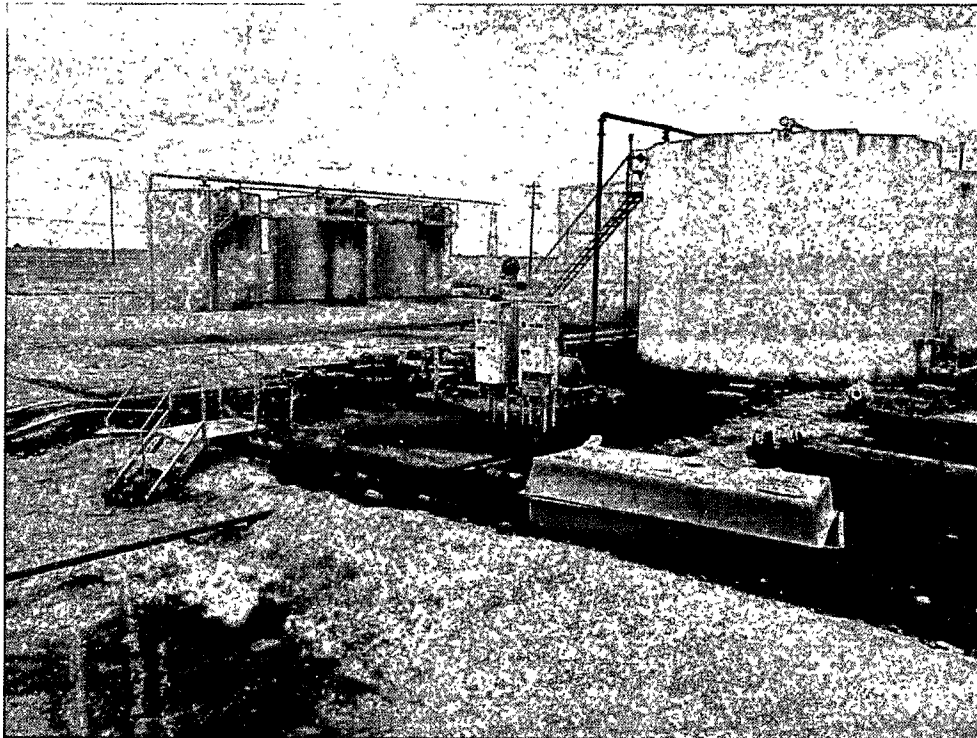
- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event

Appendix B

Photographs



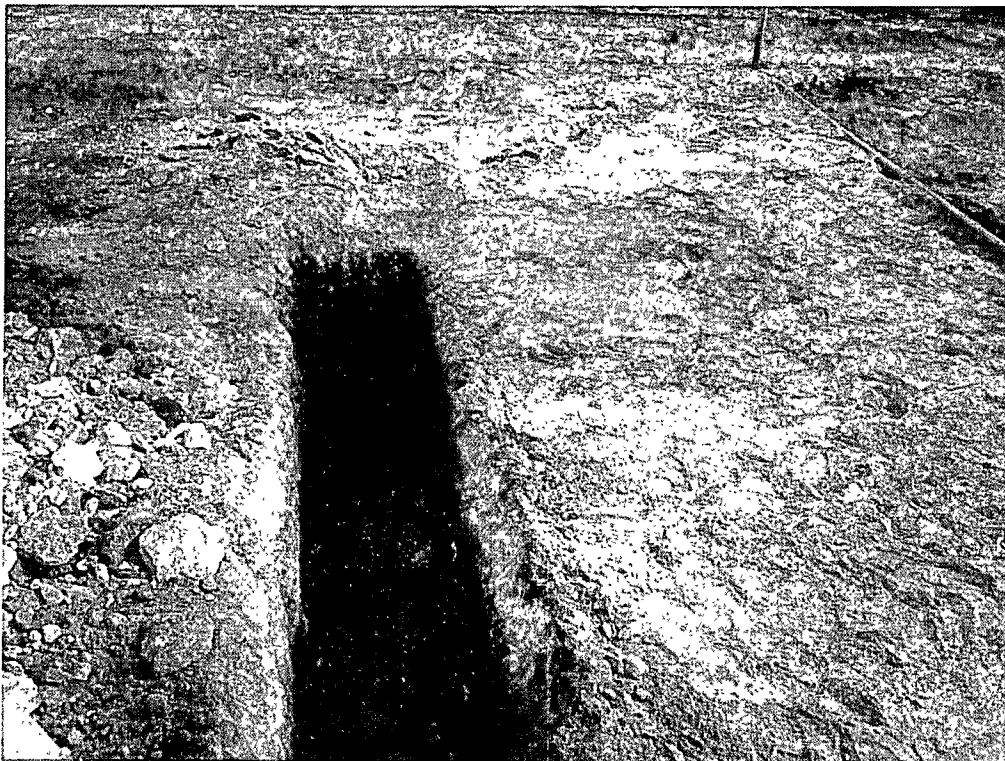
JM Denton Tank Battery facing southwest



JM Denton Tank Battery facing northwest



Trench #1 at the JM Denton Tank Battery



Trench #1 at the JM Denton Tank Battery



Trench #2 at the JM Denton Tank Battery



Trench #2 at the JM Denton Tank Battery

Appendix C
Release Notification and Corrective Action
(Form C-141)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Artec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-14
Revised October 10, 20

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report

☐ Final Report

Name of Company	Legacy Reserves, LP	Contact	Kevin Bracey
Address	P. O. Box 10848, Midland, Texas 79702	Telephone No.	432-238-2856
Facility Name	JM Denton Tank Battery	Facility Type	Tank Battery
Surface Owner	Darr Angell	Mineral Owner	
		Lease No.	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	11	15S	37E					Lea

Latitude 33° 01.827" North

Longitude 103° 10.241" West

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	1750 bbls	Volume Recovered	1500 bbls
Source of Release	Tank	Date and Hour of Occurrence	8-10-2009 @ 2:00 am	Date and Hour of Discovery	8-10-2009 @ 8:30 am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Geoff Leking		
By Whom?	Kevin Bracey	Date and Hour	8-14-2009 @ 9:00 am		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

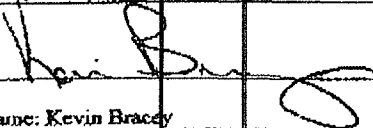
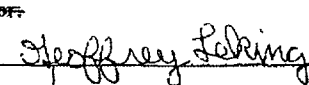
If a Watercourse was Impacted, Describe Fully.*

WATER @ 155'

Describe Cause of Problem and Remedial Action Taken: The transfer pump on a 1,000 barrel water tank malfunctioned resulting in a release of produced water. The site will be remediated to NMOCD guidelines.

Describe Area Affected and Cleanup Action Taken. Release impacted approximately 30,000 square feet inside the tank battery.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:		OIL CONSERVATION DIVISION	
Printed Name: Kevin Bracey		ENV. ENGINEER Approved by District Supervisor: 	
Title: Production Foreman		Approval Date: 08/26/09	Expiration Date: 10/26/09
E-mail Address: kbracey@legacyp.com		Conditions of Approval: DELINEATE TO CLEAN + 1. SUBMIT BY FINAL C-141	
Date: 8-25-2009	Phone: 432-238-2856	IRP-09-8-2275	

FGRL0927157137

RECEIVED

AUG 26 2009

HOBBSOCD